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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/544,285	08/03/2005	Wolfgang Kentner	2003P00255WOUS	1328

7590 06/17/2009
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EXAMINER

NORMAN, MARC E

ART UNIT	PAPER NUMBER
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3744

MAIL DATE	DELIVERY MODE
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06/17/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/544,285	Applicant(s) KENTNER ET AL.	
	Examiner Marc E. Norman	Art Unit 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 May 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 5/4/09 have been fully considered but they are not persuasive.

Applicant has amended independent claims 14 and 27 to include limitations whereby the housing is insulated and the operational parameter is of the refrigeration appliance. Applicant then argues that Miozza et al. is directed to a mullion assembly disposed over a drawer in the interior of a refrigerator, and not on an insulated housing of the refrigerator. Based on this distinction, Applicant argues that the claimed invention is patentable over Miozza et al. The Examiner respectfully disagrees. The housing of Miozza (see modified Figure 2 below) inherently has some insulated properties (as all materials do) and continues to read on the claims as recited. Further, even if one disagrees with this premise, it is submitted that it would have been obvious to one of ordinary skill in the art as a simple matter involving predictable results to further insulate the housing of Miozza for the purpose of reducing heat exchange between the compartment and the rest of the refrigerator when the temperature within the compartment is set at a different temperature. It is further noted that the controller does control various operational parameters of the refrigerator (see Figure 3).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 14-17, 21, and 24-27 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Miozza et al. (US 6,880,949).

In re claim 14, Miozza et al disclose a refrigeration appliance, comprising: a housing (see marked up figure 2); said housing enclosing an inner area (122, figure 2); said inner area enclosed by a door (136, figure 1); a carrier module (figure 7) located in said housing (see marked up figure 2); and said carrier module including a control circuit (174, figure 3) for controlling (via 172, figure 3) the refrigerating capacity of the refrigeration appliance (figure 1) in said inner area (122, air space within pan, figure 2) depending on a temperature measuring signal (see temperature sensors recited in C4, L21) related to the temperature in said inner area (122, air space within) (see C8, L28-38 re controlling drawer temperature), at least one operating element (264 temp selector, C8, L47) for at least one of adjusting an operational parameter (temperature of drawer) and a display element (176, figure 3) for displaying an operational parameter (temperature settings, C6, L18-20) of said refrigeration appliance (figure 1) and at least one illuminating agent (206, figure 7) for illuminating at least some of said inner area (see

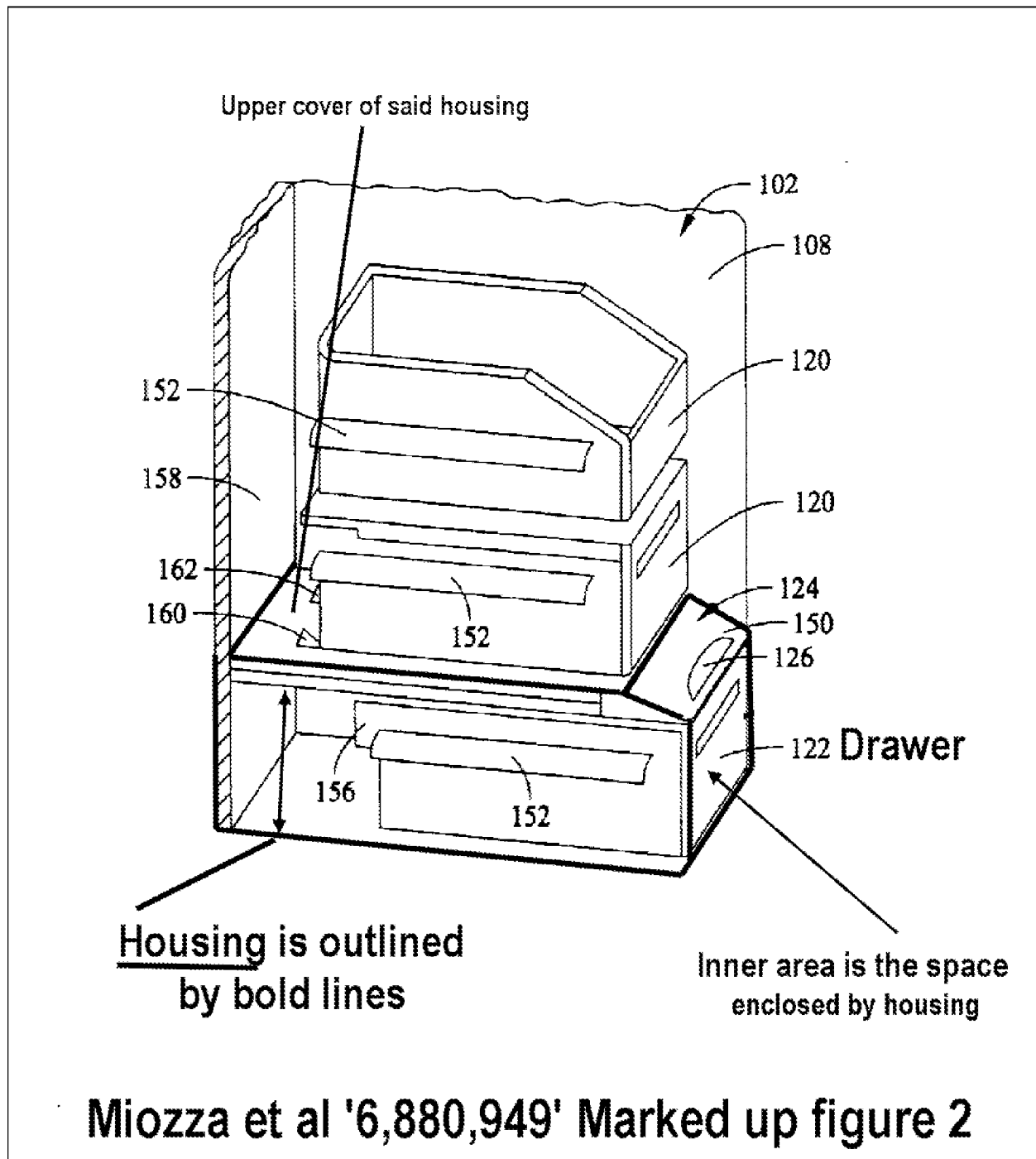
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light 206 positioning in figure 6 which shines in drawer). As discussed above, the housing of Miozza inherently has some degree of insulated property. Further, even if one disagrees with this premise, it is submitted that it would have been obvious to one of ordinary skill in the art as a simple matter involving predictable results to further insulate the housing of Miozza for the purpose of reducing heat exchange between the compartment and the rest of the refrigerator when the temperature within the compartment is set at a different temperature.

In re claim 15, Miozza et al disclose the invention above and further disclose a compartment (124, C7, L10) for said carrier module (figures 6-8, C9, L40-47) formed in an upper cover (see marked up figure 2) of said housing (see marked up figure 2).

In re claim 16, Miozza et al disclose invention above and further disclose said cover (210) designed as a side plate (see figure 2, upper cover portion) forming the upper portion of the housing exterior (see marked up figure 2).

In re claim 17, Miozza et al disclose invention above and further disclose that said carrier module (figure 6) and said compartment (124, fC7, L10) have at least a pair of electrical pin-and-socket connectors complementary to one another (see C9, L34-40 regarding connector end 292, figure 8 having pins and therefore inherently having socket side).



In re claim 21, Miozza et al disclose the invention above and further disclose that said carrier module (figure 6) has a free outer face (174, display) facing an upper edge of said door

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(136, perpendicular from face of free face is the top edge of the refrigerator door) and including at least one window (broadly interpreted as the protective cover over the display panel 126) formed in said free outer face (free outer face meaning an exterior surface of display panel) through which said inner area can be lit up by said illuminating agent (206) located in said carrier module (see C6, L1-6 regarding light switches on control panel interface 126 and C7, L60-65 regarding light controls coupled to control interface 126).

In re claim 24, Miozza et al disclose the invention above and further disclose that said carrier module (figure 6) bears a removable housing (320, figure 10, lamp holder, C9, L62-67), which covers said illuminating agent (206, figure 7, light assembly).

In re claim 25, Miozza et al disclose invention above and further disclose a door-opening sensor (inherently part of door switch, C5, L66) arranged on said carrier module (see C5, L63-68 re door switch interface).

In re claim 26, Miozza et al disclose invention above and further disclose that said inner area (122, space within) fitted with tray-shaped cool goods compartments (122, drawer itself, C3, L60, figure 2), (see figure 2).

In re claim 27, Miozza et al disclose the invention above and further disclose a refrigeration appliance, comprising: a housing (see marked up figure 2); said housing enclosing an inner area (122, space within); said inner area enclosed by a door (136); a compartment formed in an upper cover of said housing, and a carrier module (figure 6) located in said housing compartment (see marked up figures 2); and said carrier module including a control circuit (174, figure 3) for controlling (via 172, figure 3) the refrigerating capacity of the refrigeration appliance (figure 1) in said inner area depending on a temperature measuring signal (see temperature sensors recited

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in C4, L21) related to the temperature in said inner area (C8, L28-38 re controlling drawer temperature), at least one operating element (264 temp selector, C8, L47) for at least one of adjusting an operational parameter (temperature of drawer) and a display element (176, figure 3) for displaying an operational parameter (temperature settings, C6, L18-20) of said refrigeration appliance and at least one illuminating agent (206, figure 7) for illuminating at least some of said inner area; and said carrier module including at least one window (window is broadly interpreted as the transparent protective layer covering the display panel 126) formed therein through which said inner area can be lit up by said illuminating agent (206, see C7, L60-65 regarding light controls coupled to control interface 126)).

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over by Miozza et al '6,880,949 in view of Bourner '4,285,391'.

In re claim 18, Miozza et al disclose said carrier module (figure 6) having pin and socket connectors; however, they fail to explicitly recite pin-and-socket connectors are arranged in a self-contacting manner when said carrier module is inserted into its own compartment space.

Bourner teaches said pin-and-socket connectors are arranged in a self-contacting manner when the unit (e.g. a carrier module) is inserted into a compartment (figure 4).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to further evolve Miozza's pin-and-socket connectors into being arranged in a self-contacting manner as taught by Bourner in order to advantageously provide a secure connection, one that is unaffected by vibration, and thereby, optimizing performance.

1. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miozza et al '6,880,949 in view of Graf DE 3404256.

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In re claim 19, Miozza et al disclose a pin-and-socket connectors of said compartment each are arranged on a mobile cable (see flexible ribbon connector 290 in figure 8, C9, L33-39 whereby a ribbon cable is considered inherently mobile) above; however, they fail to explicitly recite said carrier module includes a strain relief on which said cable can be fastened.

Graf teaches a strain relief (element 17 being the relief means, figures 3-5) on which a cable can be fastened (cable is fastened to moving end and when the component gets inserted the wires meander through part 17 storing the extra "strain relief" wiring.)

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to fit Miozza et al with a pin and socket connector of said compartment each are arranged on a mobile cable and said carrier module includes a strain relief on which said cable can be fastened as taught by Graf in order advantageously provide freedom of motion for the cable without damaging the sheathing by straining, and thereby, prolonging the cables life.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miozza et al '6,880,949, as modified by Graf DE 3404256, as applied to claim 19, and further in view of Meuer '2,206,102.'

In re claim 20, Miozza et al, as modified by Graf, disclose a pin and socket connection above; however, they fail to explicitly recite a strain relief is formed as a meandering channel in which said cable can be placed.

Meuer teaches a meandering channel (tortuous through wire passage or groove [or channel] 86, page 4, column 2, L3-10) for the placement of cabling, in a refrigeration (page 1, C1, L3) application for the purposed of strain relief (page 1, C1, L24).

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It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Miozza et al and Graf, with said strain relief is formed as a meandering channel in which said cable can be placed as taught by Meuer in order to advantageously provide freedom of motion for the cable without damaging the sheathing by straining, and thereby, prolonging the cables life.

Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being obvious over Miozza et al '6,880,949 in view of Lee et al '2002/0071903.'

In re claims 22 and 23, Miozza et al disclose a carrier module having a display window above; however, they fail to explicitly teach that the carrier module display window has a glass pane fixed to the carrier module.

Lee et al teach using antimony-tin oxides (ATO) as anti-fogging heating layer on glass, especially environments where cool air mixes with warmer moist air (see paragraph [0057], line 4 re anti-fogging features).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Miozza et al by incorporating a glass panel, coated with antimony-tin oxides, to cover the displaying features (e.g. LED lights) unobstructed by condensation that may occur when warm moist air enters, e.g. a refrigerator (please note that glass would be the design choice since said coating cannot be applied to plastic surfaces) as taught by Lee et al in order to advantageously optimize the visibility of display providing for accurate reading that will lead to accurate operational settings, and thereby, conserve energy.

Conclusion

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Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc E. Norman whose telephone number is 571-272-4812. The examiner can normally be reached on Mon.-Fri., 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MN

/Marc E. Norman/

Primary Examiner, Art Unit 3744